

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No. 10/654,971

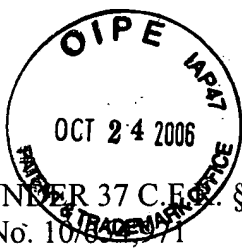
Attorney Docket No. Q77316

### **AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

#### **LISTING OF CLAIMS:**

1. (currently amended): A fluorine-containing resin composition comprising (I) a fluorine-containing prepolymer and (II) a compound containing a rare earth metal ion and/or a rare earth metal element, wherein  
  
(1) the fluorine-containing prepolymer (I) is a non-crystalline polymer having a fluorine content of not less than 25 % by weight and  
  
(2) the fluorine-containing prepolymer (I) ~~has~~ contains repeating units having a cure site comprising a carbon-carbon double bond in a side chain of the polymer and/or at an end of a trunk chain of the polymer in an amount of not less than 0.1 mol % based on all structural units constituting the prepolymer (I).
2. (original): The fluorine-containing resin composition of Claim 1, wherein the fluorine-containing prepolymer (I) is a polymer having a maximum absorption coefficient of not more than  $1 \text{ cm}^{-1}$  in a wavelength range of from 1,290 to 1,320 nm.
3. (original): The fluorine-containing resin composition of Claim 1, wherein the fluorine-containing prepolymer (I) is a polymer having a maximum absorption coefficient of not more than  $1 \text{ cm}^{-1}$  in a wavelength range of from 1,530 to 1,570 nm.



4. (original): The fluorine-containing resin composition of Claim 1, wherein the fluorine-containing prepolymer (I) is a polymer having a maximum absorption coefficient of not more than  $1 \text{ cm}^{-1}$  in a wavelength range of from 600 to 900 nm.

5. (canceled).

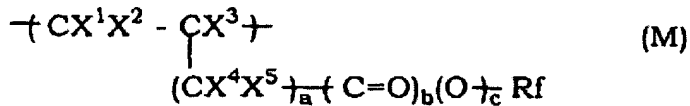
6. (currently amended): The fluorine-containing resin composition of ~~Claim 5~~ Claim 1, wherein the fluorine-containing prepolymer (I) has a carbon-carbon double bond at an end of the polymer side chain.

7. (original): The fluorine-containing resin composition of Claim 1, wherein the fluorine-containing prepolymer (I) has recurring units of a fluorine-containing ethylenic monomer having a cure site.

8. (original): The fluorine-containing resin composition of Claim 1, wherein the fluorine-containing prepolymer (I) is a fluorine-containing polymer having a number average molecular weight of from 500 to 1,000,000 and represented by the formula (1):



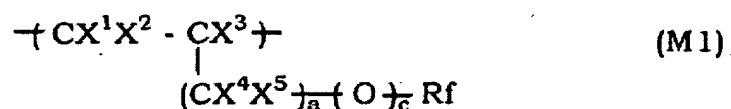
in which the structural unit M is a structural unit derived from a fluorine-containing ethylenic monomer represented by the formula (M):



wherein  $X^1$  and  $X^2$  are the same or different and each is H or F;  $X^3$  is H, F,  $\text{CH}_3$  or  $\text{CF}_3$ ;  $X^4$  and  $X^5$  are the same or different and each is H, F or  $\text{CF}_3$ ; Rf is an organic group in which 1 to 3 of  $Y^1$

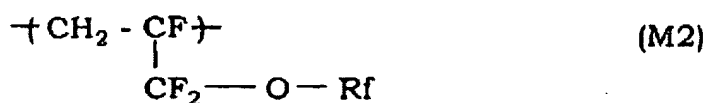
(Y<sup>1</sup> is a monovalent organic group having 2 to 10 carbon atoms and an ethylenic carbon-carbon double bond at its end) are bonded to a fluorine-containing alkyl group having 1 to 40 carbon atoms or a fluorine-containing alkyl group having 2 to 100 carbon atoms and ether bond; a is 0 or an integer of from 1 to 3; b and c are the same or different and each is 0 or 1, the structural unit A is a structural unit derived from monomer copolymerizable with the fluorine-containing ethylenic monomer providing the structural unit M, and the structural unit M and the structural unit A are contained in amounts of from 0.1 to 100 % by mole and from 0 to 99.9 % by mole, respectively.

9. (original): The fluorine-containing resin composition of Claim 8, wherein the fluorine-containing prepolymer (I) is the polymer of the formula (1) and the structural unit M is a structural unit M1 derived from a fluorine-containing ethylenic monomer and represented by the formula (M1):



wherein X<sup>1</sup> and X<sup>2</sup> are the same or different and each is H or F; X<sup>3</sup> is H, F, CH<sub>3</sub> or CF<sub>3</sub>; X<sup>4</sup> and X<sup>5</sup> are the same or different and each is H, F or CF<sub>3</sub>; Rf is an organic group in which 1 to 3 of Y<sup>1</sup> (Y<sup>1</sup> is a monovalent organic group having 2 to 10 carbon atoms and an ethylenic carbon-carbon double bond at its end) are bonded to a fluorine-containing alkyl group having 1 to 40 carbon atoms or a fluorine-containing alkyl group having 2 to 100 carbon atoms and ether bond; a is 0 or an integer of from 1 to 3; c is 0 or 1.

10. (original): The fluorine-containing resin composition of Claim 8, wherein the fluorine-containing prepolymer (I) is the polymer of the formula (1) and the structural unit M is a structural unit M2 derived from a fluorine-containing ethylenic monomer and represented by the formula (M2):



wherein Rf is an organic group in which 1 to 3 of Y<sup>1</sup> (Y<sup>1</sup> is a monovalent organic group having 2 to 10 carbon atoms and an ethylenic carbon-carbon double bond at its end) are bonded to a fluorine-containing alkyl group having 1 to 40 carbon atoms or a fluorine-containing alkyl group having 2 to 100 carbon atoms and ether bond.

11. (withdrawn): The fluorine-containing resin composition of Claim 8, wherein the fluorine-containing prepolymer (I) is the polymer of the formula (1) and the structural unit M is a structural unit M3 derived from a fluorine-containing ethylenic monomer and represented by the formula (M3):



wherein Rf is an organic group in which 1 to 3 of Y<sup>1</sup> (Y<sup>1</sup> is a monovalent organic group having 2 to 10 carbon atoms and an ethylenic carbon-carbon double bond at its end) are bonded to a fluorine-containing alkyl group having 1 to 40 carbon atoms or a fluorine-containing alkyl group having 2 to 100 carbon atoms and ether bond.

12. (withdrawn): The fluorine-containing resin composition of Claim 8, wherein at least one of Y<sup>1</sup> in Rf of said formula (M) is bonded to an end of Rf.

13. (withdrawn): The fluorine-containing resin composition of Claim 12, wherein Y<sup>1</sup> in Rf of said formula (M) is:



wherein Y<sup>2</sup> is an alkenyl group or fluorine-containing alkenyl group having 2 to 5 carbon atoms and an ethylenic carbon-carbon double bond at an end thereof; d and e are the same or different and each is 0 or 1.

14. (withdrawn): The fluorine-containing resin composition of Claim 13, wherein Y<sup>1</sup> in Rf of said formula (M) is:



wherein X<sup>6</sup> is H, F, CH<sub>3</sub> or CF<sub>3</sub>; X<sup>7</sup> and X<sup>8</sup> are the same or different and each is H or F.

15. (withdrawn): A fluorine-containing resin composition which comprises the fluorine-containing prepolymer (I) of Claim 1 and a rare earth organometal complex (II-2).

16. (withdrawn): The fluorine-containing resin composition of Claim 1 which contains an active energy curing initiator (III) in addition to the fluorine-containing prepolymer (I) and the compound (II) containing a rare earth metal ion and/or a rare earth metal element.

17. (withdrawn): The fluorine-containing resin composition of Claim 16, wherein the fluorine-containing prepolymer (I) is a fluorine-containing prepolymer having an ethylenic

carbon-carbon double bond having radical reactivity and the active energy curing initiator (III) is a photoradical generator (III-1).

18. (withdrawn): A fluorine-containing optical amplification material obtained by curing the fluorine-containing prepolymer (I) in the fluorine-containing resin composition of Claim 1.

19. (withdrawn): An optical amplifying device having a core portion and a clad portion, wherein the core portion is made of the fluorine-containing optical amplification material of Claim 18.

20. (withdrawn): A fluorine-containing light emission material obtained by curing the fluorine-containing prepolymer (I) in the fluorine-containing resin composition of Claim 1.

21. (withdrawn): A light emitting device in which a part or the whole of the light emitting device is made of the fluorine-containing light emission material of Claim 20.

22. (withdrawn): A light emitting device having a core portion and a clad portion, wherein the core portion is made of the fluorine-containing light emission material of Claim 20.